REMARKS

Claims 1, 4, 7, 9, 13 and 15-29 were pending. Claims 1, 13, 17, and 25 have been amended. Claims 33 and 34 have been added. Claims 1, 4, 7, 9, 13 and 15-29 and 33-34 are currently pending.

Support for the amendments can be found throughout the specification and in the original claims. In particular, support for new claim 33 can be found in claim 13. Support for new claim 34 can be found in claim 25.

No new matter has been added as a result of the amendments.

The Claim Rejections Under 35 U.S.C. § 112 Should Be Withdrawn

Claims 7, 13, 15-16 and 18-29 have been rejected under 35 U.S.C. § 112, ¶ 1 as containing subject matter that was not described in the specification. In particular, the Examiner contends that specification does not contain written support for a neuronal cell line obtained from a transgenic rat, a transgenic rat, and the method of producing the same, wherein the transgenic rat (as claimed) encodes in their genome C-erb-2 or TGFα operatively linked to a human NF-L gene promoter."

Applicant disagrees. Support for the claims can be found throughout the specification, including, for example, the claims as originally filed, page 8 and page 17.

For example, support can be found in original claims 4 and 7. Original claim 4 recites:

"4. A cell line as claimed in claim 3 in which the cell line is a neuronal cell line and the cell type specific promoter is a NF-L gene promoter."

Original claim 7 recites:

"7. A cell line as claimed in any of claims 1 to 5 in which the cell cycle affecting gene is a C Erb β 2 gene or a TGF α gene."

Thus, claims 4 and 7 claim a cell line written support for a neuronal cell line obtained from a transgenic rat wherein the transgenic rat encodes in their genome C-Erb-2 or TGFα operatively linked to a human NF-L gene promoter."

Similarly, page 8 of the instant specification states:

> "Preferred cell type specific promoters are the NF-L gene promoter and the MMTV promoter.
>
> Preferably the conditional oncogene, transforming gene, immortalising gene or cell cycle affecting gene is a SV40tsA58 gene, C erb β 2 gene or TGF α gene."

Thus, at the time the application was filed, the specification contains written support for a transgenic rat comprising a erb-2 gene or TGFα gene operatively linked to a human NF-L gene promoter.

"There is a strong presumption that an adequate written description of the claimed invention is present when the application is filed." M.P.E.P. § 2163 (II) (A), *citing In re Wertheim*, 541 F.2d 257, 263 (CCPA 1976) ("We are of the opinion that the PTO has the initial burden of presenting evidence or reasons why persons skilled in the

art would not recognize in the disclosure a description of the invention defined by the claims.").

Here, the PTO has not met its burden. In view of original filed claims 4 and 7, which are directed toward an NF-L gene promoter operatively linked to a C erb β 2 gene or TGF α gene, the rejection of claims 7, 13, 15-16 and 18-29 as lacking written description is improper. *See* M.P.E.P. § 2163 (II) (A) ("[R]ejection of an original claim for lack of written description should be rare.")

In view of the foregoing, withdrawal of the written description rejection is requested.

Claims 1, 7, 9, 13, 15-29 have been rejected under 35 U.S.C. 112, ¶ 1 as allegedly not being enabled.

The Office Action contends that the specification, while being enabling for a transgenic rat encoding a human NF-L gene promoter operative linked to SV40tsA58 gene, does not reasonably provide enablement for a neuronal cell line obtained from a transgenic rat . . .encoding C erb β 2 gene or TGF α gene operatively linked to a human NF-L promoter.

Applicant disagrees.

Any analysis of whether a particular claim is supported by the disclosure in an application requires a determination of whether that disclosure, when filed, contained sufficient information regarding the subject matter of the claims as to enable one skilled in the art to make and use the claimed invention without undue experimentation. M.P.E.P. § 2164.01.

"The fact that experimentation may be complex does not necessarily make it undue, if the art typically engages in such experimentation." M.P.E.P. § 2164.01.

"[A]n extended period of experimentation may not be undue if the skilled artisan is given sufficient direction or guidance." M.P.E.P. § 2164.06.

Here, there is considerable direction and guidance in the specification on how to make and use the claimed invention and there is a high level of skill in the art.

The instant specification has guided one of skill in the art to the use of two preferred cell type specific promoters (NF-L gene and the MMTV promoter) and three preferred genes (SV40tsA58, C Erb β 2, and TGFα) to generate a transgenic rat, and cell lines derived therefrom, according to the claimed invention.

In particular, the specification provides examples of constructs and transgenic rats comprising constructs of a MMTV promoter coupled to a c-erbB-2 gene and a TGFα gene (*See* pages 48-61) and examples of constructs and transgenic rats comprising constructs of an NF-L promoter to a tsA58 gene (*See* pages 18, 20-21, 29-31, 33). The specification further provides examples where a tsA58 gene has been coupled to a MMTV promoter and rats comprising such constructs. (*See* Spec. p. 18, 19, 24-29, 33).

In view of these teachings, and the level of skill in the art, one of skill in the art would be guided and directed to make and use a transgenic rat comprising a human NF-L promoter operatively linked to a c-erbB-2 gene or a TGFα gene as provided for by the present invention, without undue experimentation.

Moreover, it is improper to issue a rejection solely based on the lack of workings example covering every embodiment of the invention. *See* M.P.E.P. § 2164.02. ("Compliance with the enablement requirement does not turn on whether an example is disclosed." "The presence of only one working example should never be the sole reason for rejecting claims as being broader than the enabling disclosure . . . . To make a valid rejection, one must evaluate all the facts and evidence and state why one would not expect to be able to extrapolate the one example across the entire scope of the claims.")

Additionally, claims 13 and 25 have been amended so that the conditional oncogene, transforming gene or immortalizing gene or the cell cycle affecting gene is a SV40tsA58 gene. Claims 14 to 16 and claims 28 to 29 depend upon claim 13 and claims 26 to 27 depend upon claim 25. Thus, for this additional reason, the enablement rejection of claims 13 to 16 and 25 to 29 should be withdrawn.

With respect to claims 1 and 17, neither of these claims contain any limitation directed toward an C erb β 2 gene or TGF α gene. Rather, in claims 1 and 17, the conditional oncogene, transforming gene or immortalizing gene or the cell cycle affecting gene is a SV40tsA58 gene and the promoter is a human NF-L gene. Thus, to the extent that claims 1 and 17 have been rejected as not enabling a transgenic rat (as claimed) encoding C-erb-β-2 and TGFα operatively linked to a human NF-L promoter, withdrawal of the enablement rejection is requested.

Claims 1, 9 and 17 stand rejected for failing to recite a phenotype, which would guide one of skill in the art how to use the claimed invention.

Applicant respectfully traverses. However, to further prosecution, claims 1 and 17 have been amended to recite that the transgenic rat expresses the SV40tsA58 gene. As claim 9 depends upon claim 1, no additional amendment of claim 9 is necessary.

As explained in the specification, use of an SV40tsA gene enables the transgenic rat to develop normally as the gene is active in the immortalization process at 33°C but is inactive at 39°C due to the thermal instability of its protein product. The body temperature of the rat is sufficiently high not to permit the SV40tsA gene protein product to be functionally active and to immortalise the cells *in vivo*. (See spec., p.13).

In view of the foregoing, withdrawal of the enablement rejection of claims 1, 7, 9, 13, 15-29 is requested.

CONCLUSION

In view of the foregoing, applicant submits that the application is condition for allowance and earnestly requests prompt allowance of the claims.

The Commissioner is hereby authorized to charge the three month extension of time fee to Deposit Account 02-4377. Applicant does not believe that any additional fee is required in connection with the submission of this document. However, should any fee be required, including any fee required under 37 C.F.R. §§ 1.16, or 1.17, or if any overpayment has been made, the Commissioner is hereby authorized to charge any fees, or credit or any overpayments made, to Deposit Account 02-4377. Duplicate copies of this sheet are enclosed.

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PATENT

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